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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,703	03/04/2004	Allan A. Nostwick	T3521-908181US01	5089

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MILES & STOCKBRIDGE PC
1751 PINNACLE DRIVE
SUITE 500
MCLEAN, VA 22102-3833

EXAMINER	
TRAN, THUY V	

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/791,703	NOSTWICK, ALLAN A.	
	Examiner	Art Unit	
	Thuy V. Tran	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/17/04; 03/04/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is a response to the Applicant's filing on March 4th, 2004. In virtue of this filing, claims 1-21 are currently presented in the instant application.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12/17/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections/ Minor Informalities

2. Claims 1, 7-9, and 13-19 are objected to because of the following informalities:

Claim 1, line 8, "florescent" should be changed to --fluorescent--;

Claim 7, line 2, "means" should be changed to --unit-- (for terminology consistency);

Claim 8, line 1, --further-- should be inserted between "circuit" and includes";

Claim 9, line 1, --further-- should be inserted between "circuit" and includes";

Claim 13, line 1, "A control system" should be changed to --The controller-- or --The lighting system controller--;

Claim 14, line 1, "The control system" should be changed to --The controller-- or --The lighting system controller--; "an" should be changed to --the--; and "a florescent" should be changed to --the fluorescent--;

Claim 14, line 2, "can be" should be changed to --is--;

Claim 15, line 1, "The control system" should be changed to --The controller-- or --The lighting system controller--;

Claim 15, line 2, --a-- should be inserted between "by" and "resistor"; and "R116" should be deleted;

Claim 16, line 1, "The control system" should be changed to --The controller-- or --The lighting system controller--;

Claim 16, line 2, "transistors Q1 and Q2" should be replaced with --a switching unit including first and second transistors--;

Claim 17, line 1, "The control system" should be changed to --The controller-- or --The lighting system controller--; and "the" should be changed to --a--;

Claim 17, line 2, "transistor Q3" should be replaced with --a third transistor of a switching unit--;

Claim 18, line 1, "The control system" should be changed to --The controller-- or --The lighting system controller--;

Claim 18, line 2, "to" should be changed to --for charging a--; and "C116" should be deleted;

Claim 19, line 1, "The control system" should be changed to --The controller-- or --The lighting system controller--; and "diodes D1-D4" should be deleted; and

Claim 19, line 2, "in transistors Q1 and Q2" should be replaced with --flowing through diodes in first and second transistors of a switching unit--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, the recitation "the output power conditioning unit adapted to reduce output to a fluorescent gas discharge lamp when a preset threshold level of light is detected" in lines 7-9 renders the claim indefinite since it is not clear (i) output of what part/device of the controller is to be reduced, and (ii) whether the threshold level of light of the fluorescent gas discharge lamp or that of the ambient light is detected. Clarification is required.

Claims 2-19 are also rejected under 35 U.S.C. 112, 2nd paragraph, since they are dependent on claim 1.

With respect to claim 14, a rejection under 35 U.S.C. 112, 2nd paragraph applies in the same manner as to claim 1.

With respect to claim 15, the recitation "a minimum oscillator frequency is determined by resistor R116" in line 2 renders the claim indefinite since "R116" cannot be defined. Clarification is required.

With respect to claim 16, the recitation "currents across transistors Q1 and Q2 set a maximum oscillator frequency" in line 2 renders the claim indefinite since "Q1 and Q2" cannot be defined. Clarification is required.

With respect to claim 17, the recitation "wherein a current carried by transistor Q3 is linearly proportional to a current carried by a photocell" in lines 1-2 renders the claim indefinite since "Q3" cannot be defined. Clarification is required.

With respect to claim 18, the recitation "wherein a direct current signal is used to charge capacitor C116" in lines 1-2 renders the claim indefinite since "C116" cannot be defined. Clarification is required.

With respect to claim 19, the recitation "wherein diodes D1-D4 gate currents in transistors Q1 and Q2 to charge a timing capacitor" in lines 1-2 renders the claim indefinite since "D1-D4 and Q1 and Q2 " cannot be defined. Clarification is required.

With respect to claim 20, the recitation "the output power conditioning unit adapted to reduce output to a fluorescent gas discharge lamp when a preset threshold level of light is detected" in lines 5-7 renders the claim indefinite since it is not clear (i) output of what part/device of the controller is to be reduced, and (ii) whether the threshold level of light of the fluorescent gas discharge lamp or that of the ambient light is detected. Clarification is required.

With respect to claim 21, the recitation "the output power conditioning unit adapted to reduce output when a preset threshold level is detected" in lines 7-8 renders the claim indefinite since it is not clear (i) output of what part/device of the controller is to be reduced, (ii) the threshold level of what part or device of the controller, and (iii) whether the threshold level of light of the fluorescent gas discharge lamp or that of the ambient light is detected. Clarification is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 7, and 10-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Guisinger (U.S. Patent No. 5,030,887).

With respect to claim 1, as to the best interpretation, Guisinger discloses, in Figs. 1-2E, a lighting system controller comprising (1) an input power factor correction circuit (which includes parts/elements from MAINS to the cathode of diode [144] including IC 28; see Fig. 1; col. 3, lines 16-23) adapted to supply boosted and converted DC power from an AC power source, and (2) a start-up circuit (which includes IC [62] and related parts/components, e.g. 148, 158, 168, ...; see Fig. 1; col. 6, lines 37-44) adapted to provide a starting voltage to an output power conditioning unit [82, 84, 86, 88, 90, 92, 94, 96, 98]; the start-up circuit includes a first circuit [24 VDC, 158, 168] adapted to provide a first bias voltage supply to the output power conditioning unit (through resistors 90, 92; see Fig. 1) and a second circuit [24 VDC, 148] adapted to provide a second bias voltage supply to the input power factor correction circuit; the output power conditioning unit adapted to reduce output to a fluorescent gas discharge lamp [100, 102] when a preset threshold level of light (of the lamp) is detected (see col. 6, lines 1-44).

With respect to claim 2, Guisinger discloses, in Fig. 1, that the controller further comprises a switching unit [140] adapted to control application of the boosted and converted DC power to a lamp unit (which includes lamps [100] and [102]).

With respect to claim 3, Guisinger discloses, in Fig. 1, that the output power conditioning unit is connected to the input power factor correction circuit and to a switching unit [140].

With respect to claim 4, Guisinger discloses, in Fig. 1, that the output power conditioning unit is adapted to control an operation of a switching unit [140] so as to control application of the boosted and converted DC power to a lamp unit (which includes lamps 10, 102).

With respect to claim 7, Guisinger discloses, in Fig. 1, that the start-up circuit is adapted to provide a starting voltage to the output power conditioning unit.

With respect to claim 10, Guisinger discloses, in Fig. 1, that the output power conditioning unit supplies a heating voltage (which causes heat to the filaments of the lamp [100, 102]; see col. 8, lines 13-27).

With respect to claim 11, Guisinger discloses, in Fig. 1 and col. 5, lines 35-49, that the output power conditioning unit supplies an arc current (which is supplied through windings [98P, 98S] and magnetic core [98], and established between the filaments of the lamps [100, 102]).

With respect to claim 12, Guisinger discloses, in Figs. 1-2E, that in the controller, a switching unit [140] is adapted to provide positive and negative DC voltages to a lamp unit (which includes the lamp [100, 102]).

With respect to claim 13, Guisinger discloses, in Fig. 1 and col. 6, lines 1-44, that the controller further comprises a feedback system [108, 110, 112, 114, 116, 118] adapted to sense lamp unit light output and automatically adjust a current level supplied to a lamp unit (which includes the lamp [100, 102]).

With respect to claim 14, as to the best interpretation, Guisinger discloses, in Fig. 1, that the output to the fluorescent gas discharge lamp [100, 102] is reduced when light above the threshold is detected (see col. 6, lines 1-44).

With respect to claim 15, as to the best interpretation, Guisinger inherently discloses that, when a photocell [110] is in low light conditions, a minimum oscillator frequency is determined by a resistor [122] (since current and oscillating frequency are interrelated; see col. 5, line 52 – col. 6, line 44).

With respect to claim 16, as to the best interpretation, Guisinger inherently discloses that, when a photocell [110] is in bright light conditions, currents across transistors [94, 96] set a maximum oscillator frequency (since current and oscillating frequency are interrelated; see col. 5, line 52 – col. 6, line 44).

With respect to claim 17, as to the best interpretation, Guisinger inherently discloses that a current carried by a transistor [94, 96] is linearly proportional to a current carried by a photocell (see col. 5, lines 58-59).

With respect to claim 18, as to the best interpretation, Guisinger discloses, in Fig. 1, a direct current signal is used to charge a capacitor [56].

With respect to claim 19, as to the best interpretation, Fig. 1 of Guisinger shows that the gate currents charge a timing capacitor (out from pin [14] of IC 28).

With respect to claim 20, as to the best interpretation, Guisinger discloses, in Figs. 1-2E, a lighting system controller and a corresponding method comprising (1) supplying a boosted and converted DC power from an AC power source (including an input power factor correction circuit (which includes parts/elements from MAINS to the cathode of diode [144] including IC 28; see Fig. 1; col. 3, lines 16-23) adapted to supply boosted and converted DC power from an AC power source), and (2) providing a starting voltage wherein a first circuit [24 VDC, 158, 168] provides a first bias voltage supply to an output power conditioning unit (through resistors 90, 92; see Fig. 1) and a second circuit [24 VDC, 148] provides a second bias voltage supply to an input power factor correction circuit; wherein the output power conditioning unit is adapted to reduce output to a fluorescent gas discharge lamp [100, 102] when a preset threshold level of light is detected (see col. 6, lines 1-44).

With respect to claim 21, as to the best interpretation, Guisinger discloses, in Figs. 1-2E, a controller comprising (1) an input power factor correction circuit (which includes parts/elements from MAINS to the cathode of diode [144] including IC 28; see Fig. 1; col. 3, lines 16-23) adapted to supply boosted and converted DC power from an AC power source, and (2) a start-up circuit (which includes IC [62] and related parts/components, e.g. 148, 158, 168, ...; see Fig. 1; col. 6, lines 37-44) adapted to provide a starting voltage to an output power conditioning unit [82, 84, 86, 88, 90, 92, 94, 96, 98]; the start-up circuit includes a first circuit [24 VDC, 158, 168] adapted to provide a first bias voltage supply to the output power conditioning unit (through resistors 90, 92; see Fig. 1) and a second circuit [24 VDC, 148] adapted to provide a second bias voltage supply to the input power factor correction circuit; the output power conditioning unit adapted to reduce output to a fluorescent gas discharge lamp [100, 102] when a preset threshold level of light (of the lamp) is detected (see col. 6, lines 1-44).

Allowable Subject Matter

7. Claims 5-6 and 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest:

- A lighting system controller wherein a first circuit is a first voltage doubling rectifier circuit and comprises a first pair of diodes, in combination with the remaining claimed limitations as called for in claim 5 (claim 6 would be allowable since it is dependent on claim 5); and

- A lighting system controller wherein the start-up circuit further includes a first zener diode electrically connected to the input power factor correction circuit that limits and regulates the second bias voltage supply, in combination with the remaining claimed limitations as called for in claim 8 (claim 9 would be allowable since it is dependent on claim 8).

Citation of relevant prior art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Newman, Jr. et al. (Pub. No.: 2004/0183477) discloses an electronic ballast.

Prior art Alexandrox (U.S. Patent No. 6,809,483) discloses a method and apparatus for arc detection and protection for electronic ballasts.

Prior art Noone et al. (U.S. Patent No. 6,414,448) discloses an electronic ballast for a gas discharge lamp.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

06/25/2005

THUY V. TRAN
PRIMARY EXAMINER